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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,685	12/10/2004	Robert C Fitzer	57894US004	3074

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EXAMINER	
REIS, TRAVIS M	

ART UNIT	PAPER NUMBER
2859	

DATE MAILED: 05/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/517,685	FITZER ET AL.	
	Examiner	Art Unit	
	Travis M. Reis	2859	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 March 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7,9-14,18,31-33,37-40,43,45 and 46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,9-14,18,31-33,37-39,43,45 and 46* is/are rejected.

7)☒ Claim(s) *40* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 December 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 1-4, 7, 11-14, 31, & 32 are objected to because of the following informalities: Claim 1 recites the limitation "the subparts comprising solid material". Claims 2-4, 7, 11-14, 31, & 32 further limit the subparts or the solid material of the indicator without providing proper antecedent basis. Appropriate correction is required. Furthermore, for further consideration of the claims on the merits, the examiner has taken the interpretation that the dependent claims refer to the subparts and the "solid material" stated in claim 1.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 4, 5, 10, 11, 18, 31-33, 38, 39, & 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Rubey (U.S. Patent 4239014).

Rubey discloses a shock indicator (Figure 1) and method of manufacturing comprising providing a base (17) having a first side and a second side; an indicator comprising a plurality of indicator subparts, the subparts comprising a metal solid (13) of a first mass size and a primary colored liquid droplet (11) (col. 2 lines 51-53) of a larger mass size, the subparts arranged in a first configuration when the shock indicator is in a first state prior to a shock event (Figure 1), and in a second configuration when the shock indicator primary subpart is dislodged in a second state following a shock event from any direction (col. 1 lines 60-63); adhesive means (col. 2 lines 26-27) associated with the second side of the base for attachment of the shock indicator to a surface; and a surface modified transparent containment member indicator (15) (col. 2 lines

46-48; lines 54-57) disposed on the first side of the base and enclosing the indicator therein (Figure 1).

4. Claims 1-4, 6, 9, 18, 31, 38, & 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Boardman (U.S. Patent 3782204).

Boardman discloses a shock indicator (Figure 1) and method of manufacturing comprising providing a base (31) having a first side and a second side; an indicator (11) comprising a plurality of indicator subparts the subparts comprising a primary solid elastomeric plastic impingement object (25) of a large size, a solid material agglomerated powder (57), and surface modified panels (19) (col. 3 lines 9-10) of smaller sizes arranged in a first configuration when the shock indicator is in a first state prior to a shock event, and in a second configuration with dispersed powder in a second state following a shock event from any direction (Figure 4); and mechanical means (37) associated with the second side of the base for attachment of the shock indicator to a surface (Figure 1).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 12-14, 37, 45, 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rubey.

With reference to claim 12, Rubey discloses all of the instant claimed invention as stated above in the rejection of claims 1, 2, 4, 5, 10, 11, 18, 31-33, 38, 39, & 43, including that the composition of the solid is variable (col. 2 lines 67-68) and many liquid compositions are suitable for the droplet (col. 2 line 60).

Rubey does not disclose the solid is a clay and the liquid is a mineral oil. However, the particular type of material used to make the solid and liquid, absent any criticality, is only considered to be the use of a " preferred " or " optimum " material out of a plurality of well known materials that a person having ordinary skill in the art at the time the invention was made would have find obvious to provide using routine experimentation based, among other things, on the intended use of Applicant's apparatus, i.e., suitability for the intended use of Applicant's apparatus, and since the courts have stated that a selection of a material on the basis of suitability for intended use of an apparatus would be entirely obvious. See In re Leshin, 125 USPQ 416 (CCPA 1960). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to make the solid a clay and the liquid mineral oil in order to set up a particular predetermined acceleration indication.

With reference to claims 13 & 14, Rubey discloses all of the instant claimed invention as stated above in the rejection of claims 1, 2, 4, 5, 10, 11, 18, 31-33, 38, 39, & 43, including that the composition of the solid is variable (col. 2 lines 67-68) and the liquid droplet is a water/glycol mix (col. 2 lines 60-62).

Rubey does not disclose the solid is a clay filler. However, the particular type of material used to make the solid, absent any criticality, is only considered to be the use of a " preferred " or " optimum " material out of a plurality of well known materials that a person having ordinary skill in the art at the time the invention was made would have find obvious to provide using routine experimentation based, among other things, on the intended use of Applicant's apparatus, i.e., suitability for the intended use of Applicant's apparatus, and since the courts have stated that a selection of a material on the basis of suitability for intended use of an apparatus would be entirely obvious. See In re Leshin, 125 USPQ 416 (CCPA 1960). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the

invention was made to make the solid a clay filler in order to set up a particular predetermined acceleration indication.

Rubey does not disclose the liquid at 23^0C has a surface tension within the range from about 10×10^{-3} N/m to about 80×10^{-3} N/m a density from about 0.5 to about 2grams/cm^3, and a zero rate shear viscosity from about 1×10^{-3} to about 1×10^6 Pa-s. However, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide a surface tension within the range from about 10×10^{-3} N/m to about 80×10^{-3} N/m a density from about 0.5 to about 2grams/cm^3, and a zero rate shear viscosity from about 1×10^{-3} to about 1×10^6 Pa-s, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the "optimum range" involves only routine skill in the art. ***In re Aller***, 105 USPQ 233. Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to make the liquid have a surface tension within the range from about 10×10^{-3} N/m to about 80×10^{-3} N/m a density from about 0.5 to about 2grams/cm^3, and a zero rate shear viscosity from about 1×10^{-3} to about 1×10^6 Pa-s in order to set up a particular predetermined acceleration indication.

With reference to claims 37 & 46, Rubey discloses all of the instant claimed invention as stated above in the rejection of claims 1-5, 7, 10, 11, 18, 31-33, 38, 39, & 43, including the shock indicator can be associated with complex electronic apparatus (col. 1 lines 13-14).

Rubey does not disclose the devices are cellular telephones, personal digital assistants, hand held computers, and digital cameras. However, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. ***Ex parte Masham***, 2 USPQ2d 1647 (1987). Therefore, it would have been obvious

to one with ordinary skill in the art at the time of the invention was made to apply the shock indicator to these devices in order to determine whether they have been damaged if dropped.

With reference to claim 45, Rubey does not disclose a placing a plurality of indicators on the first side of said base. However, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide a plurality of indicators, since it has been held that the mere duplication of the essential working parts of a device involves only routine skill in the art. ***St. Regis Paper Co. v. Bemis Co.***, 193 USPQ 8. Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to add additional shock indicators in order to determine the extent of a shock event.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boardman in view of Duncan (U.S. Patent 6663679).

Boardman discloses all of the instant claimed invention as stated above in the rejection of claims 1-4, 6, 9, 18, 31, 38, & 43, but does not disclose the shock indicator further comprise means to indicate exposure to wetness.

Duncan discloses a high intensity non reversing humidity indicator (Figures 1-2) which provide indication of wetness and humidity when employed in order to indicate a possible corrosive environment (col. 6 lines 35-51). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to add the indicator disclosed by Duncan to the shock indicator disclosed by Boardman (i.e. through the mechanical means 37 to aid in attachment) in order to monitor for a corrosive environment.

Allowable Subject Matter

8. Claim 40 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter:

With reference to claim 40, the prior art of record does not disclose or clearly suggest a method for the manufacture of a shock indicator comprising depositing a slurry in association with the first side and thereafter drying the slurry, in combination with the remaining limitations in the claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tinsley discloses a tilt indicator (U.S. Patent 2674221). Hautly discloses a means for recording forces (U.S. Patent 2976732). Rips discloses a shock gauge (U.S. Patent 3021813). Williams discloses a shock indicating device (U.S. Patent 3373716). Itoh discloses an impact acceration recording device (U.S. Patent 3707722). Rubey discloses devices for showing receipt of predetermined shock (U.S. Patents 4068613 & 4125085). Eklof discloses a shock indicating device (U.S. Patent 4361106). Rubey discloses a directional shock indicator (U.S. Patent 4982684). Quick discloses an impact gauge (U.S. Patent 5551279). Elsasser et al. discloses a shock force indicating device (U.S. Patent 6848389).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis M. Reis whose telephone number is (571) 272-2249. The examiner can normally be reached on 8--5 M--F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Travis M Reis
Examiner
Art Unit 2859

Diego Gutierrez
Supervisory Patent Examiner
Tech Center 2800

tmr
May 15, 2006